BRUHAT BANGALORE MAHANAGARA PALIKE

RAJARAJESHWARINAGAR ZONE

ELECTRICAL DIVISION

DETAILED ESTIMATE FOR PUBLIC WORKS

Name of the Work:Providing Electrical Maintenance and Repair to BBMP Buildings and BBMP School in Ward No.17 of RR Nagara Zone

Est. No.AEE/ELE/RRNZ/ EST/ /19-20 | **Est Cost:-4,00,000/-**

Sl No	SR ref Page No.	SR ref Item No.	Description of Work	unit	Qty	Rate	Amount
1		1	Providing services of Clerk/computer operator/Dataentry operator/Tax collector/Electrician and other Skilled Workers.Skilled Electrician. Dept of labour No KAE 71 LWA 2015 Dtd:04/08/2016.	Per person per Month	2	13365.00	26730.00
2	3	1.8.2	Supplying and fixing of PVC casing and capping on the wall or ceiling using necessary materials like bends, screws at an interval of 300mm .... etc. as required. 25mm (Item No. - 1.8.2)	Mtr	200	26.00	5200.00
3a	6	2.5.1	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & confirming to GTP of GROUP -A. 1sqmm	Mtr.	200	13.00	2600.00
3b	6	2.5.2	1.5 sqmm	Mtr	400	18.60	7440.00
3c	6	2.5.3	2.5 sqmm	Mtr	400	29.20	11680.00
3d	6	2.5.4	4 sqmm	Mtr	800	42.10	33680.00
4	8	2.7.4	Supplying and drawing PVC flexible copper wire of approved make in place of deteriorated wire. 23/0.0060"	Mtr	200	8.00	1600.00
5	16	3.7.A.4	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293 GROUP A Stepped Fan Regulator.	Each	16	286.00	4576.00
6a	18	3.15.A.1	Supplying and fixing/replacing of 6/16/32Amps electrical accessories on existing switch board. GROUP A 6Amps SP Switch	No	75	35.00	2625.00
6b	18	3.15.A.2	6Amps 2way Switch	No	10	49.00	490.00
6c	18	3.15.A.3	6Amps 3 way 5 pin Socket	No	10	53.00	530.00
6d	18	3.15.A.4	6Amps 3 pin Top	No	10	51.00	510.00
6e	18	3.15.A.5	6Amps Bakelite ceiling rose	No	25	43.00	1075.00
6f	18	3.15.A.6	6 Amps lamp holder	No	15	48.00	720.00
6g	18	3.15.A.7	6 Amps bell push	No	5	48.00	240.00
6h	18	3.15.A.8	6 Amps bell buzzer	No	5	117.00	585.00
6i	18	3.15.A.9	16 Amps SP switch	No	5	89.00	445.00
6j	18	3.15.A.10	16 Amps 3 way 5 pin socket	No	5	94.00	470.00

Sl No	SR ref		Description of Work	unit	Qty	Rate	Amt
	Page No.	Item No.					
6k	18	3.15.A.11	16 Amps 3 pin top	No	5	77.00	385
7	25	4.29.2	LED Indoor Supplying of 2' feet - LED PVC Square Batten ..W with high quality diffuser with Life of 25000 burning hours & 70% lumen maintenance with CRI > 80. Power Input: 220-240V @ 50Hz & Power factor >0.9 along with CE approved drivers. 5 years Warranty against any manufacturing defect working under standard electrical condition LED light fighting 4' - 28 watts	No	42	1774.00	74508.00
8	108	17.7.1	Fixing all types and all capacities of fluorescent / false ceiling / spot light / CFL / LED fittings indoor on the wall / ceiling / rafters / girders using 23/0.0076" twin twisted PVC insulated wires, required Nos of round blocks and clamps. On wall / ceiling / Rafter / Girders	Each	42	98.00	4116.00
9	45	6.7.3	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 63Amps	Each	3	234.00	702.00
10a	16	3.6.5	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required nos. of machine screws, bolts nuts etc., complete on the existing metal/PVC box. 10 module	Each	5	227.00	1135.00
10b	16	3.6.6	12 module	each	5	267.00	1335.00
11	20	4.2	Supplying and fixing PBBC/Bakelite straight or slant batten holder and wiring with 60w/230 volts lamps.	Each	25	88.00	2200.00
12	78	9.2.1	Supplying of 1440rpm heavy duty exhaust fan with bracket blades suitable to operate on 230V 50Hz, AC Supply complete.12" Sweep (300mm)	Each	2	3654.00	7308.00
13	78	9.3.1.1	Supplying capacitor type ceiling fan complete with down rod blades, shackle, canopies etc., for operation on 230 volts, 50 cycles. Single phase AC supply conforming to ISS-374-1979 and with double ball bearing system. 48" Sweep (1200mm) Regular model	Each	12	2376.00	28512.00
14	78	9.4.1	Supplying wall mounting fan suitable to operate at single-phase 230v A.C. supply. 300mm Sweep	Each	4	2424.00	9696.00
15	108	17.9	Fixing a ceiling / wall mounting fan of all capacities and all types, with necessary clamps and 'S' hook made out of 15mm dia MS rod, with 5 amps. ceiling rose of approved quality with necessary length of 23 / 0.0076 inch PVC insulated twin twisted wire of approved quality, mounted on a suitable size wooden board and wired.	Each	16	237.00	3792.00
16	109	17.12	Fixing one exhaust fan in the nitch already left in the wall with bolts and nuts and 5 amps. ceiling rose with sufficient length of 23 / 0.0076 inch PVC insulated twin core wire.	Each	2	412.00	824.00
17a	47	6.16.1	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. (Item No. - 6.16) 5-32Amps SP	Each	16	418.00	6688.00
17b	47	6.16.3	5-32 Amps DP	Each	8	849.00	6792.00
17c	47	6.16.6	40-63 Amps	Each	3	1936.00	5808.00

	SR ref		Description of Work	unit	Qty	Rate	Amount
	Page No.	Item No.					
18	55	7.1	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia (Item No. - 7.1)	No	3	2727.00	8181.00
19	104	16.2.1	Supplying and fixing one of 230 volts Ding dong bell and a flush type bell push with gang box fixed on necessary wooden or rawl plugs using NF screws Ding Dong Bell	Each	2	200.00	400.00
20	104	16.3.1	Supplying and fixing/replacing condenser for ceiling fan/MV/SV/MH and other luminaries. upto 4mfd	Each	6	104.00	624.00
21	104	16.4.3	Rewinding a ... mm ceiling fan/after using necessary gauge annealed and insulated copper wire with necessary insulating, separators vibration arresting shellac, etc including replacement of bearings if any transportation to and from the spot to workshop inclusive of releasing the refixing. (Item No. - 16.4)1200MM	Each	8	630.00	5040.00
22	104	16.5	Releasing the existing fan dismantling testing painting after removing the existing painting by scraping and cleaning (spray method) not less than 2 coats of approved make enamel paint to a ceiling fan and wiring and fixing of the same.	Each	8	278.00	2224.00
23	105	16.11	Supply and fixing of heavy duty open construction ferromagnetic copper ballast for 20/40 watts fluorescent tubes.	Each	80	200.00	16000.00
24	105	16.12	Releasing the existing FTL Fitting all capacities, checking, testing and installing at same place.	Each	60	30.00	1800.00
25	105	16.15.1	Supplying and fixing/replacing of fluorescent tube. 18 to 40Watts	No	120	75.00	9000.00
26	105	16.18	Supply and fixing of 230 volts 20/40 watts starter for fluorescent lamp.	No	140	31.00	4340.00
27	105	16.19	Supply and fixing of 230 volts 20/40 watts fluorescent lamp holder.	No	60	31.00	1860.00
28	106	16.27	Supplying and fixing 6Amps capacity 4 way universal shutter type spike buster suitable to operate on 230V 50Hz AC Supply.	No	6	613.00	3678.00
29	49	6.4	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete. A) 14 SWG	sqcm	75000	0.37	27750.00

Sl No	SR ref		Description of Work	unit	Qty	Rate	A
	Page No.	Item No.					
30	56	7.4.6	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. 3.5 core 35 sqmm	Mtr	65	204.00	13260.0
31	61	7.8.A.1	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. 6 sqmm to 16 sqmm	Mtr	65	10.80	702.00
32	61	7.9	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) In soil (hard)	Mtr	60	106.00	6360.00
33	62	7.12	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV. 40mm	Mtr	8	345.00	2760.00
34	62	7.13.4	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc. 35Sqmm	Each	1	362.00	362.00
35	64	7.22.B.5	Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc. Copper wire. 10 SWG	Each	40	69.30	2772.00
36	46	6.13.B.6	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) FOUR POLE a)100 amps 25KA	Each	1	5809.00	5809.00
37	47	6.18.4	Supplying, fixing and wiring Earth Leakage Miniature Circuit Breaker [ELMCB] 240/450V up to 300mA sensitivity on existing wood/panel board. 63 amps 4 pole	Each	1	3350.00	3350.00
38	48	6.36	Supplying and fixing of LED type panel board indicating lamp with required colour suitable for 220v A.C. 50 Hz 12/24v D.C.	Each	3	442.00	1326.00
39	48	6.25	Supplying, fixing and wiring rotary selector switch suitable for Ammeter.	Each	1	172.00	172.00
40	48	6.26	Supplying, fixing and wiring rotary selector switch suitable for Voltmeter.	Each	1	140.00	140.00
41	48	6.2	Supplying, fixing and wiring 0 to 600Volts 96x96mm AC Voltmeter on existing panel/wood board.	Each	1	390.00	390.00
42	48	6.23	Supplying, fixing and wiring 0 to 100amps Direct Reading AC analog type Ammeter	Each	1	452.00	452.00

	SR ref		Description of Work	unit	Qty	Rate	Amount
	Page No.	Item No.					
43	49	6.38	Supplying ..... amps rated 3phase with neutral bus bar using required capacity electrolytic aluminum strips covered with heat shrinkable coloured PVC sleeve, mounted on phenolic/FRP/DMC insulator which are mounted on powder coated 40x6mm M.S.flat frame work in existing panel board. The bus bar shall have suitable holes for termination of incoming and outgoing cables as per IS specification with necessary bolts, nuts and washers etc., complete. a)100Amps 4x30x6mm Aluminum Strips	mtr	2	2135.00	4270.00
44	49	6.39	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. A) 50x50x6mm	mtr	25	338.00	8450.00
45	2	1.3.3	Supplying heavy gauge PVC Conduit Pipe ....dia .....mm thick with suitable size bends, metal junction boxes adhesive paste etc., by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering up to the wall surface and run with 18 SWG GI fish wire run throughout the conduit wherever necessary. a) 32mm dia 2.5mm thick	mtr	110	88.00	9680.00
46	42	4-1.5	KSRB 4-1.5 : Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.43cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 (Item No. - 4.5, Page No. 12) (2.19 cum/ foundation As per 2014-15 SR page no-42)	cum	0.6	5874.00	3524.40
			Miscellanious and round off	L/S			326.60
			Total				**400000.00**
Rupees Four Lakh Only							

Certificate

1) Certified that,the work spot has been inspected by me & prepared the estimate in most economical way of executing the work.

2.) The Provisions made in the estimate are adequate and are necessary.

3.) The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.

4.) The rates in the Estimate is based on the KPWD (Elect) SR 2014-15.

Junior Engineer(Electrical)
RR Nagar Zone

Asst Executive Engineer (Elect)
RR Nagar Zone

Executive Engineer(Elect)
RR Nagar Zone

Administrative Sanctioned for Rs. 400000-00

Rs. Four lakhs only.

.....is accorded

under the head p0294.

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By EE (Elect) RRN/ page 18 & 19.

Registered as R.R.N. No. 08/19-20. Subject to conditions contained in enclosed memo No. 08/19-20. Date 13/6/19.

AE, (Elect) RRN

EE, (Elect) RRN

Technically Sanctioned for Rs. 400000-00

Rs. Four lakhs only.

.....is accorded

under the head p0294

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By EE (Elect) RRN/ page 16 & 17.

Registered as R.R.N. No. 08/19-20. Subject to conditions contained in enclosed memo No. 08/19-20. Date 14/6/19

AE, (Elect) RRN

EE, (Elect) RRN